

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/05874

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 G01R11/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G01R H05K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.    |
|----------|---|--------------------------|
| X        | FR 2 745 911 A (SOCOMEC SA)<br>12 September 1997<br>see abstract<br>see page 8, line 6 - line 19  | 1, 6, 7, 9,<br>10, 12    |
| Y        | see page 9, line 30 - page 10, line 2<br><br>see claims 1, 2, 12, 14<br>see figures 1, 1A, 1B, 2, 5   | 2-5,<br>13-19,<br>21-32  |
| Y        | US 4 963 820 A (MEDLIN ROGER E)<br>16 October 1990<br><br>see column 3, line 11 - line 22<br>see column 4, line 35 - line 60<br>see figures | 4, 5,<br>13-19,<br>21-32 |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

1 July 1999

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08/07/1999

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Information on patent family members

International Application No

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| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---------------------|----------------------------|---------------------|
| FR 2745911 A                              | 12-09-1997          | FR 2745910 A               | 12-09-1997          |
| US 4963820 A                              | 16-10-1990          | AU 628546 B                | 17-09-1992          |
|   |                     | AU 5485190 A               | 15-11-1990          |
| US 5834932 A                              | 10-11-1998          | NONE                       |                     |
| GB 2276728 A                              | 05-10-1994          | NONE                       |                     |
| EP 0420534 A                              | 03-04-1991          | US 5001420 A               | 19-03-1991          |
|   |                     | CA 2014915 A               | 25-03-1991          |
|   |                     | JP 3152477 A               | 28-06-1991          |
|   |                     | PT 95408 A                 | 30-06-1992          |
| GB 2282917 A                              | 19-04-1995          | NONE                       |                     |